

TRANSFORMATIONS

EMMANUEL REY (Ed.)



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At a time of climate emergency, shrinking available resources, and environmental crisis, awareness of the multiple consequences of decades of urban sprawl is leading to the promotion of territorial strategies aimed at preserving natural environments and arable land by prioritizing the inward shift of urbanization. This effort extends well beyond city centers to include vast and varied territories in suburban and peri-urban regions. The creation – or reinforcement – of neighborhoods with a density carefully adapted to the context, a fine mix of functions, and a low-carbon interconnection to the wider territory is a promising strategy to which the architectural project can make a decisive contribution.

These observations are at the heart of the work carried out by the Laboratory of Architecture and Sustainable Technologies (LAST), which systematically integrates a multidimensional perspective, a multi-scalar imbrication, an evaluative approach, and an openness to interdisciplinarity into its approach. Between the freedom offered by the academic framework and investigations rooted in concrete sites, the many works gathered here provide an architectural corpus that reveals the rich field of possibilities in the face of the complex nature of contemporary issues. Through multi-scalar approaches and interdisciplinary contributions, this collective effort becomes the source of broader questions related to the evolving role of the architect in the multiple territories in transition.

The publication of this booklet, which accompanies the box set containing the four books GREEN DENSITY, URBAN RECOVERY, SUBURBAN POLARITY, and LIVING PERIPHERY, would not have been possible without the support of several renowned institutions, including the Ecole polytechnique fédérale de Lausanne (EPFL), which provides the ideal environment for fertile interactions between research and teaching, the Swiss National Science Foundation (SNSF), which has funded several of our research projects, the Swiss Academy of Science, which awarded us the “swiss award for transdisciplinary research” in 2015, and EspaceSuisse, whose French-speaking section has generously supported our editorial approach.

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PRESSES POLYTECHNIQUES ET UNIVERSITAIRES ROMANDES





















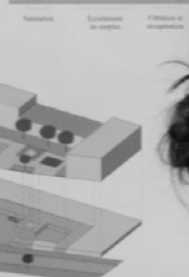
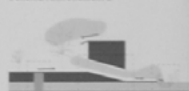








Schéma renouvellement 2



LAST

Plan de situation 1:1000

PLACE

PLACE

Plan d'étage 1 et Jardin 1:200

LAST

Schéma de distribution

Schéma de principe

Accès aux commerces du rez depuis la place

Coupe constructive 1:20

Composition de la toiture
L'axe central est en
Poutres, support 200mm
Vide de ventilation 200mm
Isolation thermique 200mm
Écran étanche 200mm
Date en béton armé 200mm

Composition du mur

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Composition de la terrasse

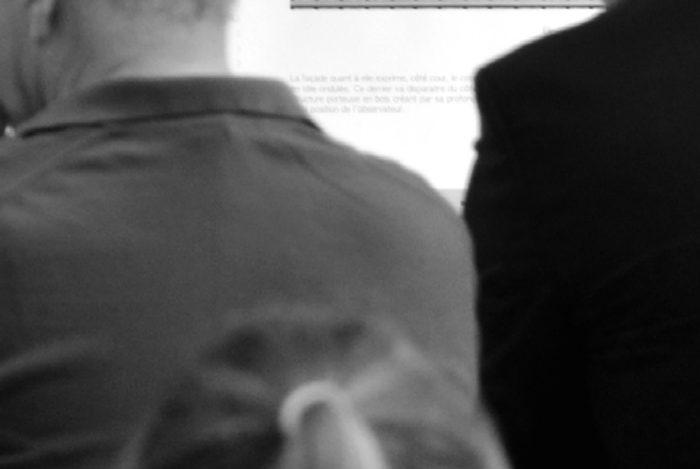
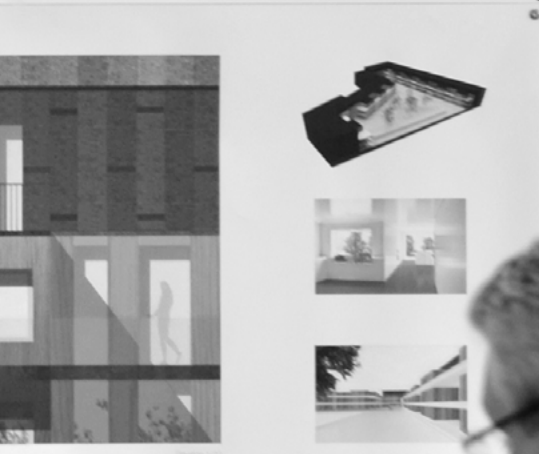
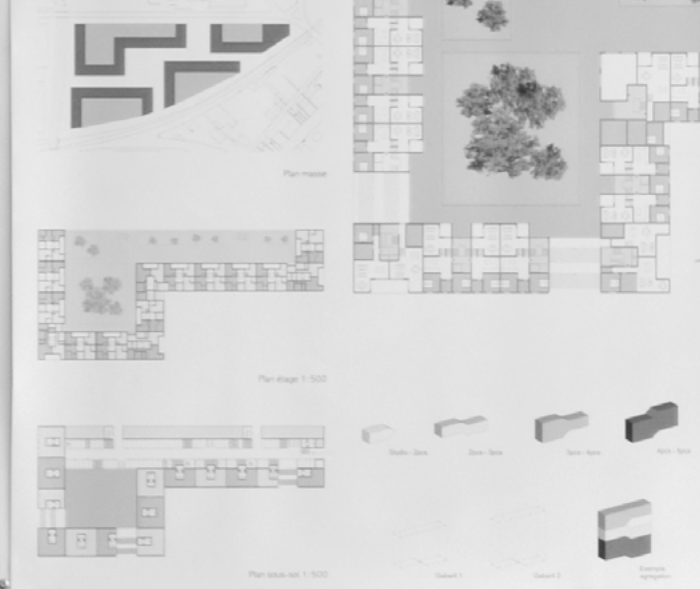
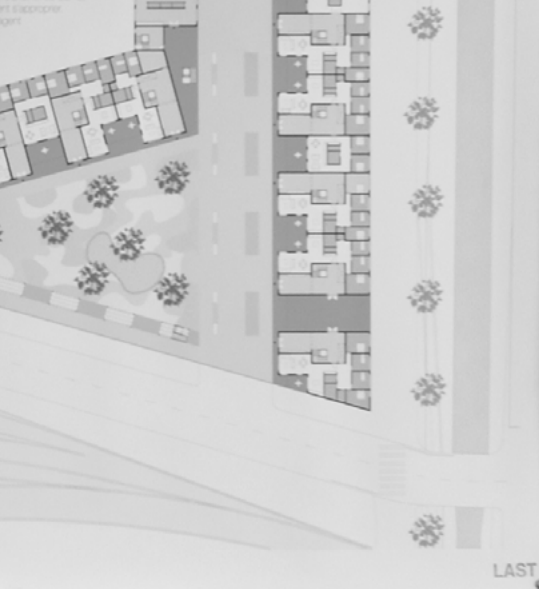
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Vide en grès de ventilation
200mm
Isolation thermique 200mm
Date en béton armé 200mm

Composition du mur

Les murs sont en
Poutres, support 200mm
Vide de ventilation 200mm
Isolation thermique 200mm
Date en béton armé 200mm

Composition du sol

Le sol est en
Coulée, dalle en
béton armé 200mm













11 FORM
Final Critique
with
Olivier Thill
Éric Lapierre
David Van Severen
Tu. 18.12.2014
09:00 - 17:00
Archizoom Space

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FORM

Final Critics

with

Olivier Thill

Éric Lapierre

David Van Severen

Tu. 18.12.2014

09:00 - 17:00

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EMMANUEL REY

TRANSFORMATIONS

“Fundamentally, architecture is an art of transforming situations, but it is also an art of turning norms into forms, references into inventions, and nature into culture.”

Paul Chemetov [1]

Since the first industrial revolution [2] and the spectacular rise of fossil fuels worldwide, human activities have developed at an unprecedented pace, profoundly altering the territories in which they have unfolded. The environmental impacts of this socio-economic development are so far-reaching that a growing number of intellectuals consider that we have entered a new geological era – the Anthropocene – in which humans have acquired such influence over the biosphere that they have become its central actors [3].

The consequences are evident not only in global imbalances but also in the multiplication of problems arising in more localized contexts, as well as in the growing risk of an uncontrolled depletion of available resources. At the dawn of the twenty-first century, growing awareness of these issues is giving rise to profound reconsiderations, accompanied by deep uncertainty about our collective ability to invent new societal balances – ones capable of managing resources sparingly, drastically limiting ecological damage, and repairing the consequences of past excesses, while simultaneously adapting to a climate disruption whose full scale remains only partially understood [4].

[1] Cité dans RUBIN P. ET AL., *Transformation des situations construites*. Paris : Canal Architecture, 2020, pp. 102-103.

[2] Economists and historians agree that the first industrial revolution took place at the end of the 18th century in the UK, precisely between 1780 and 1810, coinciding with the start of mass coal mining and the exploitation of the steam engine.

[3] CRUTZEN P. J., STOERMER E. F., «The Anthropocene», *Global Change*, 2000, no 41, pp. 17-18.

[4] BIHOUX PH., *Le bonheur était pour demain*. Paris : Le Seuil, 2019.

Architecture is no exception to these fundamental questions, resulting in a growing quest for the most appropriate ways to renew itself without losing its vocation or its soul. Fifty years after the publication of the famous report “The Limits to Growth” commissioned by the Club of Rome [5], the discipline finds itself confronted with the same issues and perplexities as society at large. Aware of their social responsibilities but realistic about the pitfalls of dogmatic postures, architects today can neither rely on the continuation of obsolete practices nor fall for the illusion of a simple and glorious return to pre-modernity. Between contemporary realities and inescapable challenges linked to the consequences of climate disruption, we believe it is essential to identify how these new paradigms are likely to nourish the architectural discipline. It is in this spirit that the deliberately plural expression “transformations” should be understood here:

- The first transformation component is driven by the ambition to reshape the built environment towards sustainability. Already underway, this vast project involves a genuine dynamic of transition, from the qualitative regeneration of already built-up areas to the ecological management of available resources, the decarbonization of urban systems, the circularity of economic processes, and the anticipation of socio-cultural changes. From this perspective, and given the urgency of climate change, contributing to the accelerated implementation of a decarbonized society stands out as both a crucial priority and an unavoidable challenge [6].
- The second component of transformation is linked to the nature of the sites on which most architectural projects are now focused. In the post-industrial era that currently characterizes the whole European continent, priority is to revisit already urbanized areas that nonetheless offer significant potential for qualitative evolution. Due to their distinctive features and strategic location, such sites call for in-depth inquiry into the confrontation with the existing, the determination of the appropriate degree of renewal, and ultimately, the inscription of a new stratum into the territorial palimpsest [7].
- The third transformation component concerns aspects of the architectural discipline itself. As an art of transformation, architecture cannot remain disconnected from the challenges of our time. Within the context of ecological transition, the architectural project stands in a dialectical relationship. On the one hand, it can make a significant contribution – as a driving force behind proposals – to the ongoing changes, particularly those aimed at meeting society’s primary needs with few resources and minimal impact. On the other hand, from a conceptual point of view, these challenges simultaneously constitute a “raw material” for rethinking some of the intrinsic modalities of the architectural project [8].

These observations have been at the heart of our thinking since the founding of the Laboratory of Architecture and Sustainable Technologies (LAST) at the Ecole polytechnique fédérale de Lausanne (EPFL) in 2010. They have prompted us to renew our approach to project teaching and to develop an architectural research activity, systematically integrating a multidimensional perspective, a multi-scalar interweaving, an evaluative approach, and an openness to interdisciplinarity [9] [10].

- [5] MEADOWS D. ET AL., *The limits to growth*. New-York : Universe books, 1972.
- [6] INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Climate Change 2021. The Physical Science Basis. Summary for Policymakers*. Geneva : IPCC, 2021.
- [7] CORBOZ A., *Le territoire comme palimpseste et autres essais*. Besançon : Editions de l’Imprimeur, 2001.
- [8] REY E., « Vers une architecture durable ». In *Master of Architecture Projects 2012*. Lausanne : EPFL / ASAR, 2012, pp. 102-105.
- [9] REY E., « Sustainable architecture : towards integrated strategies from urban design to building component ». In KHAN A., ALLACKER K. (Ed.), *Architecture and sustainability : Critical perspectives*. Brussels : Sint Lucas Architecture Press, 2015.
- [10] REY E., LUFKIN S., « GREEN DENSITY. A transdisciplinary research and teaching project for the design of sustainable neighbourhoods ». *GAIA, Ecological Perspectives for Science and Society*, 2016, no 3, pp. 185-190.
- [11] OFFICE FEDERAL DE LA STATISTIQUE / UNION DES VILLES SUISSES, *Statistiques des villes suisses 2020*. Neuchâtel / Bern : 2020.
- [12] REY E., FRANK F., « Métropolisation de la Suisse : entrave ou opportunité pour la durabilité ? », *Tracés*, Actes de la 8^e édition du Forum Ecoparc, Special Issue, November 2015, pp. 3-6.
- [13] « Rêve pavillonnaire, les dessous d’un modèle ». Film directed by ELHADAD M., Temps noir, 2019.
- [14] OFFICE FEDERAL DE LA STATISTIQUE, *Évolution future des ménages privés. Les scénarios de l’évolution des ménages privés en Suisse et dans les cantons de 2020 à 2050*. Neuchâtel, May 2021.
- [15] MEKACHER N., JAKL M., *La culture du bâti pour tous ? Enquête sur la culture du bâti*. Bern : Federal Office of Culture, 2018.
- [16] FRANK F., REY E., « Zone villa: grandeur et décadence d’un modèle ». *Les Cahiers de l’ASPA*, 2015, no 2, pp. 4-11.
- [17] REY E. (Ed.), *GREEN DENSITY*. Lausanne : Presses polytechniques et universitaires romandes, 2013.
- [18] REY E. (Ed.), *URBAN RECOVERY*. Lausanne : Presses polytechniques et universitaires romandes, 2015.
- [19] REY E. (Ed.), *SUBURBAN POLARITY*. Lausanne : Presses polytechniques et universitaires romandes, 2017.
- [20] REY E. (Ed.), *LIVING PERIPHERY*. Lausanne : Presses polytechniques et universitaires romandes, 2022.

Understanding territories in transition

Marked by decades of urban sprawl, the setting for the various works gathered in this collection is defined by relatively diffuse boundaries between city and countryside. As in most neighboring countries, statistical data confirm the empirical observations of contemporary Swiss landscapes. Whereas only 45% of Switzerland's resident population lived in cities and conurbations in 1950, today these areas are home to around 77% of the country's population and 79% of its jobs [11]. These spatial structures are simultaneously contiguous, juxtaposed, and heterogeneous, with blurred boundaries, and now constitute the dominant form of settlement for inhabitants and their activities. This situation raises profound questions, notably concerning the risk of a certain uniformization of low-density territories and the multiple impacts induced by urban sprawl: landscape fragmentation, increased car dependency, high infrastructure costs, abundant consumption of non-renewable resources, and excessive greenhouse gas emissions [12].

These observations have led us to question the logic at work in previous decades and to promote qualitative density within already urbanized areas. Without a more parsimonious and reasoned use of land, it seems impossible to truly influence the trends previously observed. This dynamic, which prompts reflection on reclaiming under-valued spaces at the heart of the built environment, extends well beyond city centers to include vast territories in suburban and peri-urban regions. Some sectors represent strategic opportunities to contribute to the transition of urban areas, notably those located close to public transport stops and offering simultaneously potential for new residents and activities. This approach makes it possible to curb urban sprawl and encourage a shift away from dependence on individual motorized transport [13]. It also represents an increased challenge for architectural projects, which must reconcile a given density with a genuine quality of life.

Careful attention to public and green spaces, the development of new amenities, the integration of shared spaces, and the decentralization of services close to homes all encourage socio-cultural support for this territorial reorientation. This must also be considered within the context of a changing demographic structure, strongly influenced by the emergence of a long-life society and the breakdown of the traditional family model. According to recent forecasts for 2050, only 29% of Swiss households will comprise more than two people. Most households will then consist of either a single person (28%) or two people (33%) [14]. Yet a recent survey by the Swiss Federal Office of Culture shows that a single-family house in a green setting is still the "dream home" for a majority of respondents, for whom it is synonymous with a high quality of life [15]. Even if these residential aspirations are likely to evolve, addressing the need for new forms of proximity and developing intergenerational housing models better suited to an aging population remain considerable challenges [16].

In this respect, the creation – or reinforcement – of neighborhoods with a density carefully adapted to the context, a fine mix of functions, and a low-carbon interconnection to the wider territory is a promising strategy. From city centers to urban peripheries, the Swiss Plateau offers a particularly fertile field for exploring the diverse potential of this type of site. This is why the four books in this collection respectively address returning to the city [17], regenerating urban brownfields [18], creating new suburban polarities [19], and transforming peri-urban neighborhoods [20]. Resulting from both bottom-up and top-down reflections, these multiple works illustrate the interest of a polycentric, reticular, and symbiotic approach

to anchoring the transformation of the Swiss Plateau in recognition of its singularity, but also in a project dynamic that increasingly integrates issues of synergies, proximities, and circularities. Moving beyond the traditional divide between city and countryside, this integrative territorial vision, which we have named Helvepolis, can provide a framework for more sustainable lifestyles, reconciling quality of life across various urban territories with the preservation of arable land and areas of high ecological value [21].

Cultivating a multi-scalar approach

The issues raised by this inward shift in urbanization are not merely quantitative, and the architectural project is set to assume a central role in the search for alternatives to further urban sprawl [22]. For this reason, our studio's didactic approach is deliberately situated across different scales of intervention – from the urban project to the construction detail. In this way, the architectural process is brought into dialogue with broader issues.

The learning phases are based on the search for proposals to create a neighborhood of a specific density, suitable for housing and activities, within a surrounding context that is already urbanized. Positioned at the interface between architecture and urban planning, the neighborhood scale enables us to grasp the reality of the urban territories concerned in a dimension vast enough to touch on issues that go beyond the scope of a single building, yet circumscribed enough to visualize the potential of the proposed solutions [23].

Throughout the academic year, the project process is designed to be iterative, marked by continuous interplay between the different scales under consideration. In terms of didactic organization, it is structured around specific milestones corresponding to the urban form, the built entity, the building, the housing, and the envelope. In the first part of the academic year, which focuses on questions of contextual analysis, morphology, and urban structure, work is developed in groups. In the second part of the year, work becomes individualized to deepen the understanding of representative parts of the proposed vision for the future neighborhood, while maintaining ongoing collaboration and refinement within the group.

At the neighborhood scale, the approach aims to capture pre-existing traces on the site, to identify lines of force, and to propose a guiding idea to formalize both built and landscaped elements. In particular, this involves exploring the interactions between issues of density, functional mix, proximity, and mobility. At the building scale, the focus shifts to the design of one or more mixed-use buildings, highlighting especially the residential component and the precise relationship between the building and public space. This phase begins with a 1/33 scale study of an apartment that exemplifies the housing concept imagined to take advantage of the site's assets (orientation, clearance, views, outdoor space) and the proposed morphology. Exploring the project mechanisms that allow a transition from a perceived space to built space, the definition of the building envelope aims to address questions of expression and materiality by integrating certain principles of bioclimatic architecture and developing construction details in line with high environmental quality. This phase of the architectural project resonates with the need for “low-carbon” approaches for all new constructions, in parallel with the intensification of architectural interventions in existing buildings.

[21] REY E., « Helvepolis, une vision intégrative pour les territoires du Plateau suisse ». *Les Cahiers de l'ASPAN*, 2017, no 2, pp. 6-9.

[22] REY E., « Les démarches pour favoriser un développement territorial durable en Suisse ». In NUSSAUME Y. ET AL., *La maison individuelle. Vers des paysages soutenable* ? Paris : Editions de la Villette, Collection Etudes et Recherches, 2012, pp. 219-238.

[23] REY E., LAPRISE M., LUFKIN S., *Neighbourhoods in Transition. Brownfield Re-generation in European Metropolitan Areas*, The Urban Book Series, Springer, 2022.

[24] MARCHAND B., « Préface ». In REY E. (Ed.), *URBAN RECOVERY*. Lausanne : Presses polytechniques et universitaires romandes, 2015, pp. 7-8.

[25] REY E., « Du territoire au détail. Le projet architectural face aux défis de la transition vers la durabilité ». Inaugural lecture, EPFL, Lausanne, April 2018.

[26] REY E., « Research by design: enjeux méthodologiques et épistémologiques ». Lecture given as part of the doctoral program Architecture and Sciences of the City (EDAR), EPFL, Lausanne, December 2017.

[27] DROUILLES J., LUFKIN S., REY E., « Energy transition potential in peri-urban dwellings. Assessment of theoretical scenarios in the Swiss context ». *Energy and Buildings*, 2017, vol. 148, pp. 379-390.

[28] FUMEAUX L., « Processus de conception intégrée pour une durabilité accrue ». In *Intégration des critères de durabilité dans le processus de conception des constructions temporaires à vocation événementielle*. Lausanne : EPFL, Doctoral thesis no 7040, 2016, pp. 56-66.

Over the year, the studio's didactic activities create a synergy between interdisciplinary theoretical contributions and concrete experimentation integrating these into the architectural project. This dual approach enables students to learn about conceptual, spatial, and expressive coherence issues, remaining mindful of the challenges associated with the transition towards sustainability. The objective is to develop design skills while simultaneously acquiring an understanding of related fields to dialogue with professionals from other disciplines in a more informed way, transcending the limits of sectoral logic and, more broadly, proactively anticipating the complex challenges that lie ahead.

Developing project-based research

The project-based visions developed in the studio lie outside current regulatory frameworks or pre-established guidelines but remain of cross-disciplinary interest. Integrating new buildings into sites composed of heterogeneous landscape entities – situated between city, suburb, and countryside – opens a tangible field of exploration for the architectural project. On the ground, implementing such projects are likely to encounter numerous legal, property, and socio-economic contingencies. Deliberately freeing themselves from these constraints and taking advantage of the freedom offered by the academic framework, the project-based visions go beyond these operational considerations and do not rule out a utopian dimension. They thus assume the principle of exploration – from territorial considerations to construction details – through the parallel conception of conceivable strategies for sites selected due to their representativeness of contemporary issues. In this way, the studio's approach “does not lead to abstract solutions detached from the context but rather highlights the different facets of the site's qualities” [24].

Widely cultivated within the studio, this spirit of exploration is also reflected in the research projects conducted in parallel within the laboratory, notably as part of the various doctoral theses. These research projects seek to transcribe the issues inherent in transitions towards sustainability at different scales of architectural intervention and aim to integrate evaluative approaches into the project process. In this way, they foster the emergence of new knowledge and reveal the innovation potential that can be transposed to architectural production. It is based on three research topics, focusing on the scale of neighborhoods in transition, bioclimatic buildings, and innovative components [25]. Considering the project as a genuine knowledge tool, the three topics combine different methodological and epistemological approaches depending on the specificity of the research questions [26]:

- Research-on-design investigations focus on the study of current practices – to identify their limits in terms of sustainability – and projects recognized as best practices. Retrospective in essence, they generally rely on the case study principle, which structures the application of a critical thinking to the object of study through methodologies combining qualitative and quantitative analysis.
- Research-by-design investigations follow a project-based approach, in the strict sense of the term, using operating methods specific to the architectural discipline. Prospective in nature, they aim to develop parallel scenarios that feed into unprecedented comparative analyses [27], or variants obtained through successive iterations as part of an integrated design process [28].

- Research-for-design investigations focus on the development of new methodologies for architectural practice. Using hybrid methodologies, the aim is not only to create new tools but also to evaluate their operational relevance through pilot applications and interaction with field actors [29].

This combination of methodologies highlights the absence of a universal formula for moving the built environment towards greater sustainability. Instead, this evolution relies on the realization of tailor-made proposals, developed iteratively and adapted – both in terms of project and process – to the specificities of each agglomeration, each city, each site [30]. From this perspective, the architectural project can play an essential role, given its ability to integrate diverse sectoral logic. On the one hand, it provides a precise yet flexible guideline that guarantees the spatial coherence of the strategies adopted; on the other, it is the preferred means of reconciling the simultaneous search for emotion and results when transforming urban territories.

To this end, an important number of parameters must be integrated into the operating methods and decision-making processes of architectural practice. From the perspective of transitions towards sustainability, the simultaneous consideration of environmental, economic and socio-cultural aspects cannot be reduced to superficial, implicit, or isolated gestures. Research shows that it must embody a genuinely reflexive and continuous approach. This is why the development of evaluative frameworks – conceived to support decision-making – is a recurrent theme in our research work. Developed through collaborations with experts from other disciplines, these evaluative approaches help to better apprehend the complexity inherent in contemporary issues, particularly at the environmental or sociological level [31].

Called NEBIUS, an acronym for Neighborhood-scale Evaluation to Benchmark the Integration of Urban Sustainability, the methodology applied to the project-based visions presented in the four books of this box set illustrates the value of this type of multi-criteria approach. It is specifically structured to enable comparative analysis using ten indicators (quantitative and qualitative). For each indicator, a histogram provides an immediate visual comparison between visions. A synoptic diagram then gathers the ten thematic indicators, whose radar-like shape offers a “sustainability profile” for each project-based vision. Thanks to the transparency of its analysis processes and the clarity of its modes of representation, the approach provides planners and decision-makers with a new decision-making tool tested at four different sites [32].

Acknowledging the complexity of implementing transitions towards sustainability, we agree with François Ascher’s assertion that “sustainable development cannot serve as Tables of the Law and enunciate commandments that would all be on the same level” but rather constitutes an issue “that identifies and reminds decision-makers of the main types of challenges, all of which must be taken into account in analyses and decisions” [33]. From this point of view, while evaluative approaches are likely to enrich the project process, they by no means allow trade-offs to be avoided. At a time of climate urgency, however, they can help to ensure that the latter are more relevant and, above all, more explicit.

In contrast to previous centuries, one of our challenges is to ensure that the transition does not take the form of a tabula rasa or the utopia of creating a new “ideal city” in the middle of the countryside. In

[29] LAPRISE M., LUFKIN S., REY E., « Monitoring tool for urban brownfield regeneration projects. Interaction with stakeholders ». *Proceedings of the 34th edition of the International Conference Passive and Low Energy Architecture, PLEA 2018 - Smart and Healthy Within the Two-Degree Limit*, Hong-Kong, December 2018.

[30] REY E., « Investigating the interactions between architectural design and sustainability transitions ». Lecture given as part of the doctoral program Architecture and Sciences of the City (EDAR), EPFL, Lausanne, December 2019.

[31] RIERA PEREZ M. G., LAPRISE M., REY E., « Fostering sustainable urban renewal at the neighborhood scale with a spatial decision support system ». *Sustainable Cities and Society*, 2018, vol. 38, pp. 440-451.

[32] LUFKIN S., REY E., « Neighbourhood-scale evaluation to benchmark the integration of urban sustainability (NEBIUS). An innovative education and research methodology ». *Proceedings of the 33th edition of the International Conference Passive and Low Energy Architecture, PLEA 2017 - Design to Thrive*, Edinburgh, July 2017.

[33] ASCHER F., LA RÉPUBLIQUE CONTRE LA VILLE. *Essai sur l’avenir de la France urbaine*. La Tour d’Aigues : Ed. de l’Aube, 1998.

[34] ALKEMADE F. ET AL. (Ed.), *Rewriting Architecture : 10+1 Actions -Tabula Scripta*. Amsterdam : Academy of Architecture / Valiz, 2020

[35] REY E., *Du territoire au détail*. Lucerne : Quart, 2014.

the context of European urbanized areas, whose multi-secular nature corresponds to what we now call a *tabula scripta* [34], the transition is conceived through the search for a series of convergent actions, coherently interwoven from territory to detail, based first and foremost on pre-existing potentialities within the already-built environment, which need to be identified, revealed, enriched or enhanced [35]. Since most of the urban territories of the future already exist, it seems more relevant than ever to simultaneously assume their diverse heritage and undertake the transformations necessary to make them both habitable and desirable in the long term.







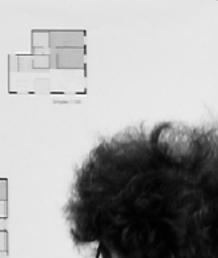
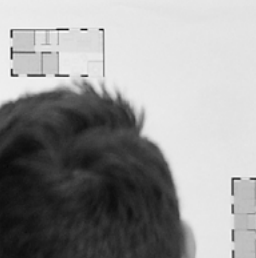
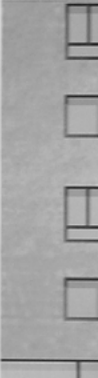
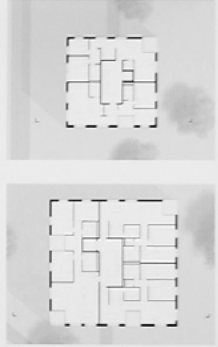
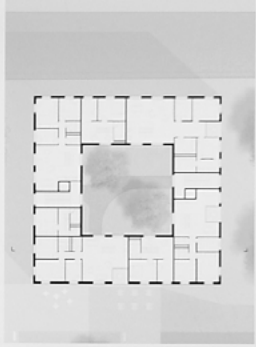
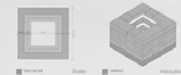
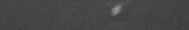
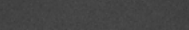
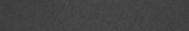
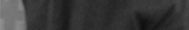
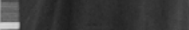
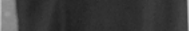
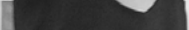






Au coeur de Bercher

A Bercher, un coeur de ville se distingue par une place proche de la gare gérée par quatre bâtiments principaux sous forme de monolithes percés offrant une densité et de la hauteur. Cette densité se dissout ensuite dans le tissu environnant en intégrant l'existant avec une variation de hauteurs du béton employé qui renforce cette gradation. A l'intérieur de ces monolithes viennent se creuser des coeurs de bâtiments, tels des coeurs offrant un monde intérieur lumineux, blanc ponctué de végétation qui contraste avec le monde extérieur.

















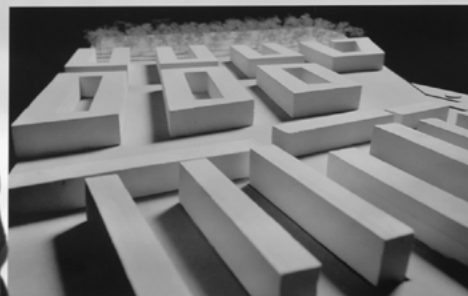






Damier

8312 habitants | 5241 emplois



est en lien avec le quartier avoisinant. A l'approche de ces parcelles adjacentes, plusieurs possibilités sont possibles. L'une des variantes Damier sur cette parcelle propose des lots adossés de grande dimension, composés de deux bâtiments en forme de « L ». L'espace de la cour offre par ce geste, facilement accessible par les habitants, un espace à l'habitat individuel. D'une rue de voirie interne. La disposition de la cour, avec ses allées piétonnes, encourage également les échanges entre voisins. Ces espaces de vie commune sont inscrits sur l'ensemble. Mais, une partie de l'ensemble avec les circulations verticales, de fait offre de points de vue communs à plusieurs appartements.

Les logements sont conçus à partir de « modules » qui sont adaptés à différents besoins au sein des bâtiments. Plus en détail, l'espace de circulation se situe autour de la cour, permet tout à la fois de relier les différents bâtiments et de créer un espace de vie commune. La disposition de ces modules permet de créer un espace de vie communautaire qui est inscrit dans le tissu de voirie, ce qui tend à favoriser le mode de vie et l'habitat individuel au sein du même ensemble.

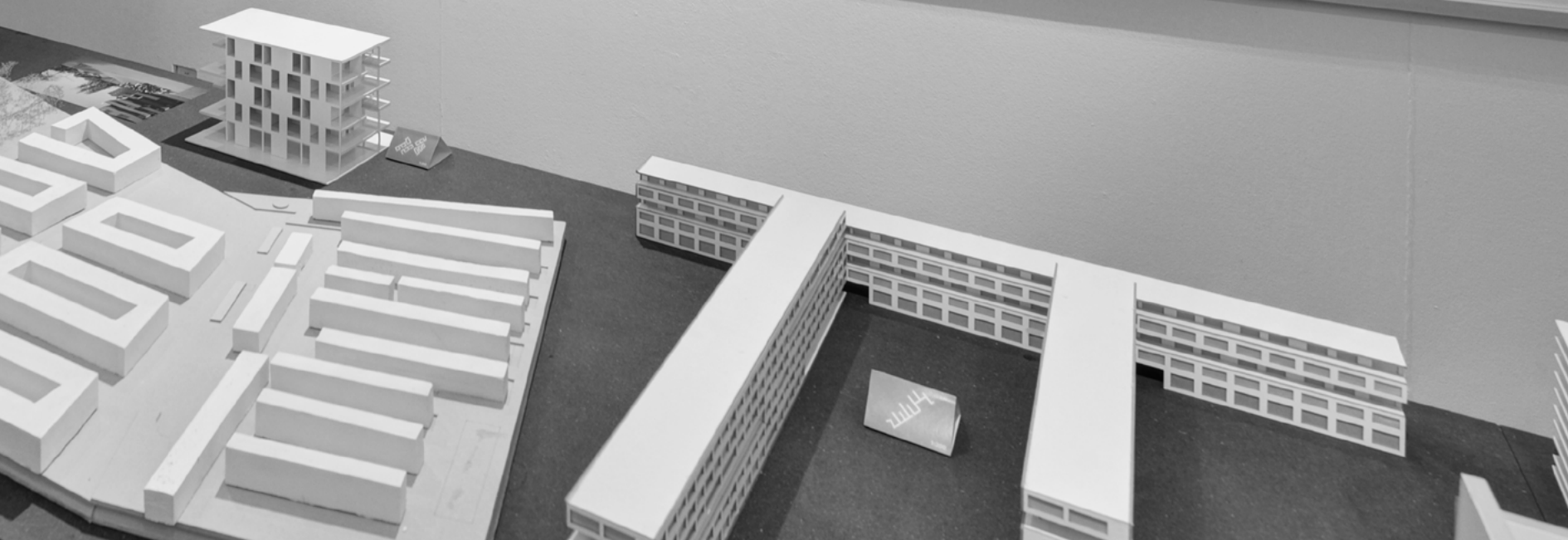
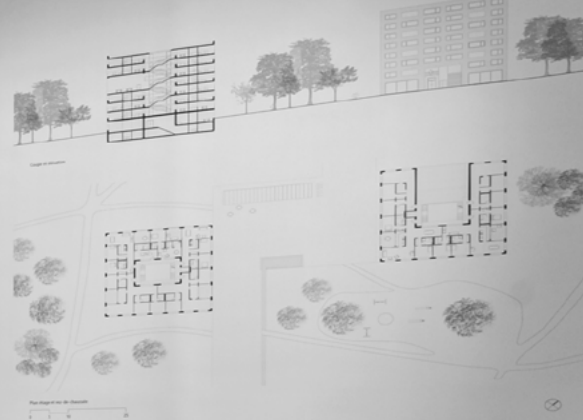


Hyperdensités

6300 Habitants / 100 000 m²

Building Type	Population Density (Habitants / 100 000 m²)
1.100 m²	1.100
1.200 m²	1.200
1.300 m²	1.300
1.400 m²	1.400
1.500 m²	1.500
1.600 m²	1.600
1.700 m²	1.700
1.800 m²	1.800
1.900 m²	1.900
2.000 m²	2.000
2.100 m²	2.100
2.200 m²	2.200
2.300 m²	2.300
2.400 m²	2.400
2.500 m²	2.500
2.600 m²	2.600
2.700 m²	2.700
2.800 m²	2.800
2.900 m²	2.900
3.000 m²	3.000
3.100 m²	3.100
3.200 m²	3.200
3.300 m²	3.300
3.400 m²	3.400
3.500 m²	3.500
3.600 m²	3.600
3.700 m²	3.700
3.800 m²	3.800
3.900 m²	3.900
4.000 m²	4.000
4.100 m²	4.100
4.200 m²	4.200
4.300 m²	4.300
4.400 m²	4.400
4.500 m²	4.500
4.600 m²	4.600
4.700 m²	4.700
4.800 m²	4.800
4.900 m²	4.900
5.000 m²	5.000
5.100 m²	5.100
5.200 m²	5.200
5.300 m²	5.300
5.400 m²	5.400
5.500 m²	5.500
5.600 m²	5.600
5.700 m²	5.700
5.800 m²	5.800
5.900 m²	5.900
6.000 m²	6.000
6.100 m²	6.100
6.200 m²	6.200
6.300 m²	6.300
6.400 m²	6.400
6.500 m²	6.500
6.600 m²	6.600
6.700 m²	6.700
6.800 m²	6.800
6.900 m²	6.900
7.000 m²	7.000
7.100 m²	7.100
7.200 m²	7.200
7.300 m²	7.300
7.400 m²	7.400
7.500 m²	7.500
7.600 m²	7.600
7.700 m²	7.700
7.800 m²	7.800
7.900 m²	7.900
8.000 m²	8.000
8.100 m²	8.100
8.200 m²	8.200
8.300 m²	8.300
8.400 m²	8.400
8.500 m²	8.500
8.600 m²	8.600
8.700 m²	8.700
8.800 m²	8.800
8.900 m²	8.900
9.000 m²	9.000
9.100 m²	9.100
9.200 m²	9.200
9.300 m²	9.300
9.400 m²	9.400
9.500 m²	9.500
9.600 m²	9.600
9.700 m²	9.700
9.800 m²	9.800
9.900 m²	9.900
10.000 m²	10.000

10000 Habitants / 100 000 m²



















REFERENCES

This booklet complements the boxed collection of four books entitled GREEN DENSITY, URBAN RECOVERY, SUBURBAN POLARITY, and LIVING PERIPHERY. This publication would not have been possible without the invaluable collaboration of the many people involved in the multiple works gathered here. Special thanks go to the contributors of the four books, the students who took part in the eight studios presented here, and the studio assistants, collaborators, experts, and lecturers. A detailed list of participants is given at the end of each book.

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